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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,031	09/19/2006	Alan K. Doerer	14372.03	2793

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EXAMINER	
XAVIER, VALENTINA	

ART UNIT	PAPER NUMBER
3644	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/517,031	DOERER, ALAN K.	
	Examiner	Art Unit	
	Valentina Xavier	3644	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 December 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/16/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 22. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 recites the limitation "the seal" in line 3. There is insufficient antecedent basis for this limitation in the claim. Claim 10 depends from claim 1, which makes no mention of a seal.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 8 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Weber et al (US 2001/0025903).

With regard to claims 1 and 19:

Weber et al discloses an aircraft door and an aircraft door frame having a door receiving opening to receive said aircraft door [0009]. It is inherent that an aircraft would have a fuselage frame structure.

With regard to claim 2:

Weber et al discloses said aircraft door frame being an outside frame edge for connection within a rough opening in a fuselage of an aircraft (See Fig. 9).

With regard to claim 4:

Weber et al discloses said door having an outer panel integrally formed with a plurality of ribs and a plurality of stringers (referred to by Weber et al as webs and stiffeners – [0034]).

With regard to claim 8:

Weber et al discloses the aircraft door being a cargo door [0001].

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Erben (US 6,168,114).

With regard to claims 12 and 13:

Erben discloses a pre-hung aircraft door (2) in a rough opening (where frame 14 is fitted) in a pre-constructed fuselage of an aircraft; an aircraft door frame (14); and the door frame secured within the opening; and the aircraft door mounted to said frame. Given the

structure recited by Erben, the method steps of claims 12 and 13 would be readily apparent during the installation of the door and the door frame in the aircraft fuselage.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al.

With regard to claims 3 and 20:

The discussion regarding claims 2 and 19 above is relied upon.

Weber et al discloses a monolithic door and a monolithic frame but fails to disclose a door and a frame being formed monolithically. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the door and the frame monolithically, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routing skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

With regard to claim 14:

Weber et al as modified above discloses a monolithic aircraft door and aircraft door frame, but fails to disclose a method of manufacturing said door and frame assembly using a cold forming process. Cold forming and machining after forming are well known manufacturing process and it would have been obvious to one having ordinary skill in the art to use this process to manufacture said aircraft door and frame assembly since cold forming before machining is an energy efficient process that mitigates scrap materials. The known technique of cold forming before machining would have predictably resulted in a more energy efficient process with minimal scrap. Therefore, it would have been within the skill of the ordinary artisan to use this process.

Claims 5 – 7 and 9 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al as applied to claim 1 above and further in view of Meyer et al (US 5,199,369).

With regard to claim 5:

Weber et al fails to disclose a latch mechanism connected with said aircraft door. However, Meyer et al discloses a latch mechanism (51). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the latch

mechanism taught by Meyer et al to the door taught by Weber et al for the well known advantage of ensuring a secure closure of the door and the aircraft.

With regard to claim 6:

Weber et al fails to disclose the door stop pin and pad assembly used to limit the movement of the aircraft door. However, Meyer et al discloses a latch mechanism having a door stop pin (83 – Meyer et al) coupled with the door; a door stop pad (73 – Meyer et al) coupled with said door (See Fig. 2 – Meyer et al); said stop pin and stop pad being aligned with one another to limit the movement of said aircraft door relative to the frame. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the door stop pin and door stop pad to the invention of Weber et al for the well known advantage of ensuring a secure closure of the door and the aircraft.

With regard to claim 7:

Weber et al as fails to disclose a seal between the door and the frame. However, Meyer et al discloses a seal (21 – Meyer et al) between the door and said door frame. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the seal taught by Meyer et al for the well known advantage of ensuring a secure closure that would protect the interior of the aircraft from outside elements.

With regard to claims 9, 10, and 11:

Weber et al as fails to disclose an inwardly extending seal flange on the door opening. Meyer et al discloses an inwardly extending seal flange (27 - See Fig. 4 of Meyer et al). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the seal flange taught by Meyer et al to the invention of Weber et al in order to provide the opening of the aircraft (in Meyer et al, the opening of the aircraft is the frame which receives the door) with a means to receive the seal.

Weber et al discloses the door having an outer peripheral edge but fails to disclose a seal seat provided adjacent to said edge for engagement with said seal. However, Meyer et al discloses a seal seat (23 - See Fig. 4 of Meyer et al) on the wall portion (25) of the door (the wall portion of the door is considered to be an "outer peripheral edge"). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the seal seat taught by Meyer et al to the door of Weber et al in order to provide the door with a means to receive the seal.

Claims 15 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al in view of Pryor (US 6,415,191).

With regard to claim 15:

Weber et al as modified above discloses an aircraft door and frame assembly including a monolithic door and frame components, but fails to disclose a method of making

these components. However, Pryor discloses a method of manufacturing which includes rough machining, forming, semi-finishing a piece of stock (See Fig. 4a and Col. 4; Line 34 – Col. 5; Line 55). These manufacturing processes involving rough machining, forming, machining, and finishing materials where the stock is clamped in a vice and released and re-clamped for a subsequent manufacturing process are very well known in the art and it would have been obvious to one having ordinary skill in the art at the time the invention was made in order to employ these processes to turn a piece of stock into any desirable shape or form.

With regard to claim 16:

Weber et al as modified by Pryor discloses finishing treatments (Col. 5; Line 33) but does not explicitly discuss deburring. However, Examiner takes Official Notice that deburring is a very well known step in the manufacturing process and it would have been within the knowledge of one skilled in the art to employ this step in any manufacturing process in order to obtain a finished product by eliminating sharp edges produced by previous machining processes.

With regard to claims 17 and 18:

Weber et al discloses the door component including an outer panel, an interior perimeter and a support frame including a rib (web) and a stringer (stiffener) as discussed in claims 1 – 4 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Valentina Xavier whose telephone number is (571) 272-9853. The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on (571)272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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